# Damage Control Tools & Kits

Lesson Topic 1.2

# Enabling Objectives

1. **Discuss the assignment of damage control Repair Party personnel**
2. **Match Damage Control duties and responsibilities with damage control tools and kits required**

# Storage of Damage Control Tools and Kits

- Tools, kits and equipment  should be stored within the repair station's area
- The area of responsibility includes the repair locker, station and passageways
- Equipment used for the same function should be stored together

# Storage of Damage Control Tools and Kits

- Priority for equipment stowage
  - Stored in reverse order "First out, last in”
  - Pilferable equipment stored in the repair locker
  - "Immediate use", equipment stored in the passageways adjoining the repair locker

# Damage Control Kits

- Purpose, to provide damage control parties the tools and supplies necessary to repair damage
- Typical DC kits found in a repair station are:
  - Monitoring
  - Investigator
  - Pipe patching, banding
  - Shoring
  - Electrical kits

# Damage Control Kits

- Monitoring Team Kit
  - One member will be assigned as a minimum per repair station
- Investigator Kit
  - Two investigators will be assigned as a minimum per repair station
- Pipe Patching Kit & Banding Kit
  - Two members will be assigned as a minimum per repair station

# Damage Control Kits

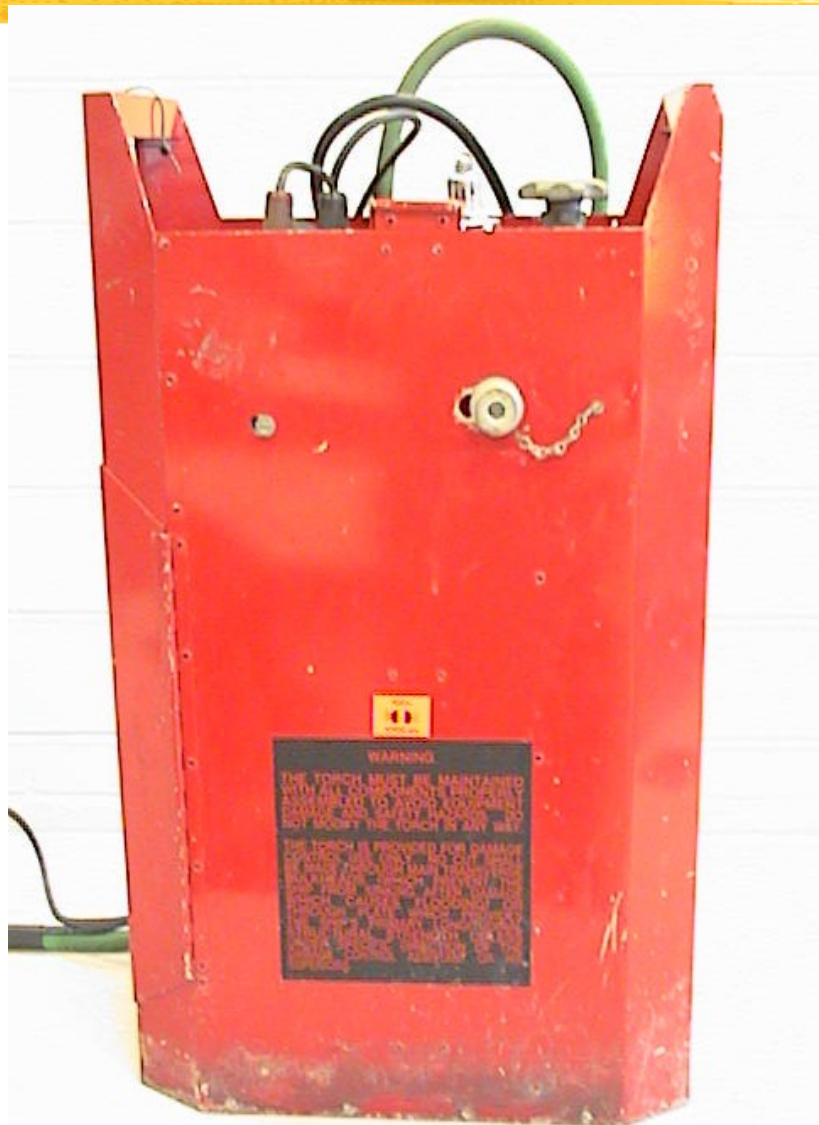
- Shoring materials/shoring tool kit
  - Three members will be assigned as a minimum per repair station
- Plugging Kit
  - Three members will be assigned as a minimum per repair station
- Electrical Kit
  - One member will be assigned as a minimum per repair locker

# Damage Control Kits

- Procurement
  - Refer to Coordinated Shipboard Allowance List, (COSAL)
  - Allowance Equipage List (AEL)
  - Allowance Parts Lists (APL)

# Miscellaneous Equipment

- Portable Exothermic Cutting Unit, (PECU)



# Miscellaneous Equipment

- Portable Exothermic Cutting Unit, (PECU)
  - Portable, self contained unit used for rapid cutting
  - Cuts at approximately 10,000 degrees Fahrenheit through steel, aluminum, stainless steel, cast iron, insulated wiring, and piping

# Miscellaneous Equipment

- Components, (Fleet Pack)
  - Case, aluminum
  - Cutting rod storage
- Oxygen cylinder
  - 48 cubic FT capacity at 2265 psi
  - Non-shattering spun steel
- Oxygen regulator
  - Preset at 60 psi

# Miscellaneous Equipment

- Battery/charger assembly
  - Charger, recharges battery, uses 120 volts AC
- Cutting rods
  - Carbon steel sheet metal, rolled to form a hollow tube
  - 1/4 inch and 3/8 inch sizes

# Miscellaneous Equipment

- Safety precautions
  - Never let oil or grease near oxygen cylinders, valves, regulators, hoses, or fittings
  - Remove all flammable materials
  - Goggles with #5 shade lens or darker
  - Ear plugs or muffs
  - Leather welding jacket/gloves
  - Fire watch with protective equipment

# Miscellaneous Equipment

- Portable Hydraulic Access Rescue System (PHARS)
  - Used for emergency access and personnel rescue
  - Used on watertight doors, hatches, and bulkheads
  - Used by the accessman

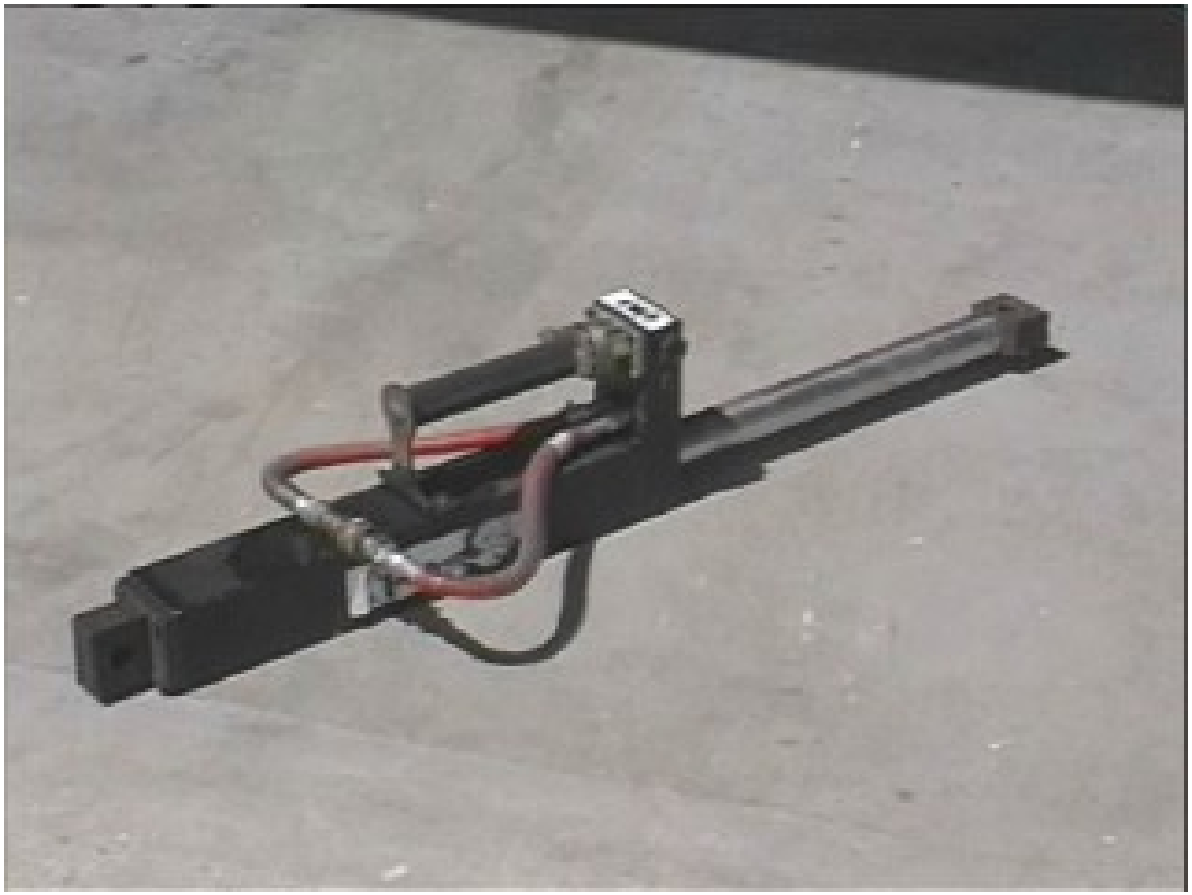
# Miscellaneous Equipment

- The system is provided with
  - Spreaders, cutters and a ram
- Prime mover
  - Provides hydraulic pressure of 10,000 psi
  - 5 horse power Yanmar diesel
- Safety precautions
  - Use extreme caution when in the cutting mode around personnel

# PHARS

# PHARS

# PHARS ram



# PHARS cutter

# PHARS spreader

# Miscellaneous Equipment

- Fire finder, model-955
  - Hand held, infrared sensor
  - Emits an audible alarm when pointed at a heat source 200 degrees or higher
  - The hotter the source the higher the pitch of the alarm
  - Powered by two 9-volt batteries

# Fire Finder

# Summary and review

- Storage of Damage Control Tools and Kits
- Damage Control Kits
  - Monitoring, investigator, pipe patching, shoring, plugging and electrical kits
- Miscellaneous Equipment
  - PECU, (PHARS) and Fire finder